

VIII. MODEL DEVELOPMENT

TRAVEL MODEL AND ESTIMATES

Three different surveys are conducted to collect data for a typical thoroughfare plan study. The surveys provide data about existing housing, employment, and traffic in each traffic zone in the planning area. **Figure 9** shows the location of the 91 traffic zones.

DWELLING UNIT SURVEY:

The 1994 housing survey results are shown in **Table A-1**. Each dwelling unit in a traffic zone was classified according to a residence cost level--Excellent (EXC), Above Average (AAV), Average (AVG), Below Average (BAV), and Poor. The data was collected by field inspection. The number of units in each zone were multiplied by an estimated number of persons per dwelling unit for each classification. (Future housing projections are shown in **Table A-1b**)

The estimated 1994 population is listed in **Table A-2**. This serves as a control total for planning area population estimates and for survey accuracy checks.

EMPLOYMENT SURVEY:

The results of the 1994 employment survey are shown in **Table A-5**. The businesses in the planning area were classified by their Standard Identification Code, which is set by the Federal government. Information on employment, commercial trucks and autos was collected. (Future employment projections are shown in **Table A-5b**)

** Employment/population ratio for 1994 = 0.46

TRAFFIC COUNTS:

Traffic counts were taken on various streets throughout the planning area. A count was taken at each station where a road crosses the planning boundary and a selection of streets inside the area. These were then used to calibrate the network model to correspond to the existing traffic conditions in the area.

GENERAL MODELING PROCEDURES:

Since no home interviews or Origin-Destination surveys were conducted, a synthetic method was used to estimate 1994 internal trip patterns. The method consists of these general steps:

1. Determination of zone trip productions using dwelling unit trip generation rates from a previous study in Rockingham\Hamlet. The initial trip generation rates were adjusted as a result of the model calibration. The list of trip generation rates for the base year 1994 are shown below.

Dwelling Unit Rating:	EXC	AAV	AVE	B-AVE	POOR
Generation Rate:	12.00	10.00	9.50	7.00	6.00